

AMENDMENTS TO THE CLAIMS

[[[1]]] 1. (Withdrawn, Currently Amended) A supercritical treatment method, comprising: dissolving an organometallic compound, in a fluorinated compound in a liquid state at room temperature under normal pressure, to prepare a solution; and introducing the solution into a supercritical fluid, to treat a substrate under a supercritical condition.

[[[2]]] 2. (Withdrawn, Currently Amended) A supercritical treatment method, comprising: dissolving an organic raw material in a solid state at room temperature under normal pressure, in a fluorinated compound in a liquid state at room temperature under normal pressure, to prepare a solution; and introducing the solution and a reactant capable of reacting with the organic raw material but incapable of reacting with the fluorinated compound into a supercritical fluid, to allow to react with each other under a supercritical condition, and thereby to form a coating of a reaction product on a substrate.

[[[3]]] 3. (Withdrawn, Currently Amended) A supercritical treatment method, comprising: dissolving an organic raw material in a solid state at room temperature under normal pressure, in a fluorinated compound in a liquid state at room temperature under normal pressure, to prepare a solution; and introducing the solution and a reactant capable of reacting with the organic raw material but incapable of reacting with the fluorinated compound into a supercritical fluid, to allow to react with each other under a supercritical condition, and thereby to make solid fine particles of a reaction product.

[[[4]]] 4. (Withdrawn, Currently Amended) The supercritical treatment method as claimed in any one of claims 1 to 3, wherein the supercritical fluid is supercritical carbon dioxide.

[[[5]]] 5. (Currently Amended) A supercritical treatment reacting apparatus, comprising:

(a) at least one [[a]] sealable raw-material vessel sealed with a polytetrafluoroethylene O-ring, into which a solution containing at least one organic raw material organometallic compound dissolved in a fluorinated compound is introduced under atmospheric normal pressure; [[,]]

(b) a supercritical-fluid storing [[a]] high-pressure vessel for a pressurized solution, said supercritical-fluid storing high-pressure vessel comprising a metal gasket, a metal O-ring or a polytetrafluoroethylene O-ring, wherein the pressurized solution comprises in which a supercritical fluid and a solution introduced from the sealable raw-material vessel; is stored,

(c) a pump mechanism for pressure-sending and a liquid pump for pressurizing the solution and introducing the pressurized solution from the raw-material vessel into the supercritical-fluid storing high-pressure vessel[[,]] ; and

(d) a supercritical reaction tank wherein a supercritical reaction of the solution containing at least one organometallic compound dissolved in a fluorinated compound occurs, so as a mechanism for pressure-sending the solution from the sealable raw-material vessel into the solution-feeding pump, whereby allowing to cause reaction of the organic raw material in a supercritical condition inside the high-pressure vessel or a reaction tank, to form a coating of a film of a reaction metallic reaction product on a substrate by the supercritical reaction, wherein an O-ring made from Teflon (registered trademark) is used for the raw-material vessel, and a metal gasket or a metal O-ring or an O-ring made from Teflon (registered trademark) is used for the high-pressure vessel.

[[[6]]] 6. (Currently Amended) A supercritical ~~treatment~~ reacting apparatus, comprising:

(a) at least one [[a]] sealable raw-material vessel sealed with a polytetrafluoroethylene O-ring, into which a solution containing at least one ~~organic raw material~~ organometallic compound dissolved in a fluorinated compound is introduced under ~~atmospheric~~ normal pressure; [[,]]

(b) a supercritical-fluid storing [[a]] high-pressure vessel for a pressurized solution, said supercritical-fluid storing high-pressure vessel comprising a metal gasket, a metal O-ring or a polytetrafluoroethylene O-ring, wherein the pressurized solution comprises in which a supercritical fluid and a solution introduced from the sealable raw-material vessel; is stored,

(c) a pump mechanism for pressure-sending and a liquid pump for pressurizing the solution and introducing the pressurized solution from the raw-material vessel into the supercritical-fluid storing high-pressure vessel[[,]] ; and

(d) a supercritical reaction tank wherein a supercritical reaction of the solution containing at least one organometallic compound dissolved in a fluorinated compound occurs, so as a mechanism for pressure sending the solution from the sealable raw-material vessel into the solution feeding pump, whereby allowing to cause reaction of the organic raw material in a supercritical condition inside the high-pressure vessel or a reaction tank, to make metallic solid fine particles of a reaction product by the supercritical reaction, wherein an O-ring made from Teflon (registered trademark) is used for the raw-material vessel, and a metal gasket or a metal O-ring or an O-ring made from Teflon (registered trademark) is used for the high-pressure vessel.

[[[7]]] 7. (Currently Amended) The supercritical ~~treatment~~ reacting apparatus as claimed in claim 5 or 6, wherein the supercritical fluid is supercritical carbon dioxide.

8. (New) The supercritical reacting apparatus of claim 5, further comprising a locally heating device for the substrate.

9. (New) The supercritical reacting apparatus of claim 6, wherein the supercritical reaction tank further comprises a back-pressure valve that creates a supersaturated state for the metallic solid fine particles produced by the supercritical reaction.